



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/979,576	02/15/2002	Martin John Hofmann	34156	3447

116 7590 09/16/2003

PEARNE & GORDON LLP  
526 SUPERIOR AVENUE EAST  
SUITE 1200  
CLEVELAND, OH 44114-1484

EXAMINER

THERKORN, ERNEST G

ART UNIT	PAPER NUMBER
----------	--------------

1723

DATE MAILED: 09/16/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 09/979,576	Applicant(s) HOFMANN, MARTIN JOHN	
	Examiner Ernest G. Therkorn	Art Unit 1723	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 22 August 2003.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-7 and 9-24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7 and 9-24 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

### Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All   b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                  | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____  |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)         | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____                                    |

Art Unit: 1723

Claims 19-24 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. If a "full-diameter opening" is intended to preclude closing the end, claim 19 is considered to be directed to new matter. Applicant pictorially shows that his opening is closed by use of a plunger.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-7, 9-10, 19-20, 22, and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vassarotti (European Patent No. 476,977) in view of Abstract of Japan Patent No. 3197863 and Andreotti (U.S. Patent No. 3,826,373). At best, the claims differ from Vassarotti (European Patent No. 476,977) in the clarity of disclosing the inlet and outlet. Vassarotti (European Patent No. 476,977) (column 3, lines 26-35) does not pictorially represent the inlet and outlet. Abstract of Japan Patent No. 3197863 pictorially represents the inlet and outlet in a similar device for the obvious purpose of allowing liquid to be chromatographed access to the bed and an outlet for the liquid that has been chromatographed to exit the bed. Andreotti (U.S. Patent No. 3,826,373) pictorially shows that use of a hollow plunger is an obvious design

Art Unit: 1723

expedient. It would have been obvious to have an inlet and outlet as pictorially represented by Abstract of Japan Patent No. 3197863 in Vassarotti (European Patent No. 476,977) because Abstract of Japan Patent No. 3197863 pictorially represents the inlet and outlet in a similar device for the obvious purpose of allowing liquid to be chromatographed access to the bed and an outlet for the liquid that has been chromatographed to exit the bed. It would have been obvious to use a hollow plunger in Vassarotti (European Patent No. 476,977) in view of Abstract of Japan Patent No. 3197863 because Andreotti (U.S. Patent No. 3,826,373) pictorially shows that use of a hollow plunger is an obvious design expedient.

Claims 10-18 and 20-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vassarotti (European Patent No. 476,977) in view of Abstract of Japan Patent No. 3197863 and Andreotti (U.S. Patent No. 3,826,373) as applied to claims 1-7, 9-10, 19-20, 22, and 24 above, and further in view of either Kronwald (U.S. Patent No. 4,888,112) or Kimura (U.S. Patent No. 5,266,193). At best, the claims differ from Vassarotti (European Patent No. 476,977) in view of Abstract of Japan Patent No. 3197863 and Andreotti (U.S. Patent No. 3,826,373) in reciting use of a glass plunger. Kronwald (U.S. Patent No. 4,888,112) (column 1, lines 39-42 and column 2, lines 46-51) discloses that it is desirable to have a glass plunger to allow for visual inspection. Kimura (U.S. Patent No. 5,266,193) (column 2, lines 64-65) discloses that plungers are interchangeably made of either glass or resin. It would have been obvious to use a glass plunger in Vassarotti (European Patent No. 476,977) in view of Abstract of Japan Patent No. 3197863 and Andreotti (U.S. Patent No. 3,826,373) either because

Art Unit: 1723

Kronwald (U.S. Patent No. 4,888,112) (column 1, lines 39-42 and column 2, lines 46-51) discloses that it is desirable to have a glass plunger to allow for visual inspection or because Kimura (U.S. Patent No. 5,266,193) (column 2, lines 64-65) discloses that plungers are interchangeably made of either glass or resin.

The remarks urge that Vassarotti (European Patent No. 476,977)'s filter is not integral. However, Vassarotti (European Patent No. 476,977)'s column 3, lines 6-10 and column 3, line 57-column 4, line 14 injection moulding with the same material and welding is considered to form an integrally bonded filter.

The remarks urge that Vassarotti (European Patent No. 476,977) does not teach use of a hollow plunger. However, Andreotti (U.S. Patent No. 3,826,373) pictorially shows that use of a hollow plunger is an obvious design expedient. As such, it would have been obvious to use a hollow plunger in Vassarotti (European Patent No. 476,977) in view of Abstract of Japan Patent No. 3197863 because Andreotti (U.S. Patent No. 3,826,373) pictorially shows that use of a hollow plunger is an obvious design expedient. This is particularly true where page 5, lines 26-30 discloses that other plungers may achieve the same advantage as applicant's plunger.

The remarks urge that Andreotti (U.S. Patent No. 3,826,373) is non-analogous are because his plunger is used in a chromatographic system and not a chromatographic column. However, a teaching with regard to a chromatographic system plunger would appear to be pertinent to other chromatographic system plungers such as those in a column. This is particularly true where page 5, lines 26-30 discloses that other plungers may achieve the same advantage as applicant's plunger.

Art Unit: 1723

The remarks urge patentability based upon use of glass. However, Kronwald (U.S. Patent No. 4,888,112) (column 1, lines 39-42 and column 2, lines 46-51) discloses that it is desirable to have a glass plunger to allow for visual inspection and Kimura (U.S. Patent No. 5,266,193) (column 2, lines 64-65) discloses that plungers are interchangeably made of either glass or resin. Accordingly, it would have been obvious to use a glass plunger in Vassarotti (European Patent No. 476,977) in view of Abstract of Japan Patent No. 3197863 and Andreotti (U.S. Patent No. 3,826,373) either because Kronwald (U.S. Patent No. 4,888,112) (column 1, lines 39-42 and column 2, lines 46-51) discloses that it is desirable to have a glass plunger to allow for visual inspection or because Kimura (U.S. Patent No. 5,266,193) (column 2, lines 64-65) discloses that plungers are interchangeably made of either glass or resin.

The remarks urge patentability based upon Vassarotti (European Patent No. 476,977)'s use of a seal. However, the open format of the claims does not preclude the use of a seal.

The remarks urge patentability based upon use of a full diameter opening. However, the open format of the claims does not preclude the use of an end cap.

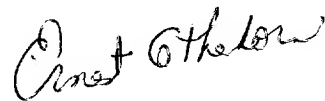
**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the

Art Unit: 1723

shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication should be directed to E. Therkorn at telephone number (703) 308-0362.



**Ernest G. Therkorn**  
**Primary Examiner**  
**Art Unit 1723**

EGT

September 11, 2003